

Amendment Under 37 C.F.R. § 1.116
USSN 09/611,230
Attorney Docket Q59991
May 16, 2005

REMARKS

Claims 12-16 and 18-22 are all the claims pending in the application.

In the Final Rejection Claims 18 and 22 were objected to because of informalities. Claims 18 and 22 were further rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 18 and 20 have been amended to overcome the objection and rejection with respect to these claims under 35 U.S.C. § 112, second paragraph.

In the last Office Action Claims 12-16 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Engle *et al.* in view of Fujioka *et al.* Claims 17 and 19 were rejected under 35 U.S.C. § 103 as being unpatentable over Engle *et al.* in view of Fujioka *et al.* as applied to Claim 12 and further in view of Hsien *et al.* Claims 18 and 22 were further rejected under 35 U.S.C. § 103(a) as being unpatentable over Engle *et al.* in view of Fujioka *et al.* and Hsein *et al.* as applied Claim 17 above and further in view of GB-2312260. Claim 20 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Engle *et al.* in view of Fujioka *et al.* as applied to Claim 12 and further in view of Hsein *et al.* and Larsen.

In rejecting Claim 17 in the Final Rejection the Examiner relied upon the teachings of Hsein *et al.* Hsein *et al.* discloses a control system for traffic lights wherein a plurality of microprocessor lamp control units 21', 22', 23' and 24' are connected in parallel to two ring shaped conductors 31 and 32. A main control device 10 is connected to said conductors. The main control device 10 (as shown in particular in Figure 3) can transmit electrical power and

control signals to the lamp control units 21'-24' through the ring-shaped layout of the conductors 31 and 32 and can also receive lamp failure signals therethrough.

When referring to conductors 31 and 32, Hsein *et al.* improperly defines them as power transmission lines. In this respect it is emphasized that each of said conductors 31 or 32 taken alone is unable to transmit power and control signals from the main control device to the units 21'-24'. As a matter of fact both of said conductors are necessary to enable such transmissions.

The ring-shaped layout of the conductors 31, 32 of Hsein *et al.* create a certain redundancy in that each of the units 21'-24' is actually connected to the main control device 10 through two lines in parallel with each other; one line being represented by 1/2 of a bifilar ring formed by the two conductors 31 and 32, the other line being represented by the other half of said bifilar ring. Thus, for instance, referring to Figure 2, unit 22' is connected to the main control device 10 on one hand through the left-side half of the bifilar ring passing by units 23' and 21' and on the other hand through the right-side half of the bifilar ring passing by unit 24'. If one of the lines is broken during road work the other one can still sustain the operation of the system.

Each of the units 21'-24' is thus coupled to the conductors such that it acquires and transmits signals on both of said transmission lines at the same time. Whereas according to the present invention as defined in the language of Claim 17 which is now combined with Claim 12, the slave units are arranged to acquire and transmit control or information signals selectively on either the first or second transmission lines.

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Furthermore, in the system of Hsein *et al.* the units 21'-24' are not operable when they receive...control signals to transfer to the second transmission line the signals received on the first line (as recited in the language of Claim 17). It is instead readily apparent that in the system of Hsein *et al.* each of the units 21'-24' permanently applies signals simultaneously to both the transmission lines.

Moreover, in Hsein *et al.* when one of the lines is interrupted the main control device or unit 10 does not detect such a condition, does not determine where the interruption(s) has(have) occurred, and does not provide any transfer of command signal to the slave units between which there is the interruption. Thus, the main control unit 10 of Hsein *et al.* does not disclose or suggest the specifically claimed features of the main control unit of the present invention as defined in Claim 12 in combination with previous Claim 17.

In view of the foregoing amendments and arguments it is submitted that Claims 12-16 and 18-22 are clearly allowable over the references of record taken either alone or in combination with each other and it is respectfully requested that these Claims be allowed and the application passed to issue forthwith.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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